

File No. 1133.13.1

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kownacki, et al

EXAMINER: N/A

APPLICATION NO.: 09/178,595

GROUP ART UNIT: 3745  
3712

FOR: Pneumatic Engine

FILED: 10/26/98

PETITION TO MAKE SPECIAL

Hon. Commissioner of Patents and Trademarks  
Attention: Petitions Section/Box DAC  
U.S. Patent and Trademark Office  
Washington, DC 20231

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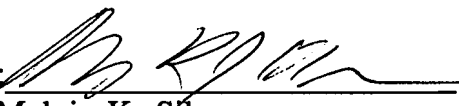
MAY 24 1999

Group 3700

Dear Sir:

Pursuant to MPEP 708-02(II), Applicants hereby petition to make this application special on the basis of infringement of the invention thereof.

Respectfully submitted,  
CHARLES KOWNACKI, et al

BY:   
Melvin K. Silverman  
Reg. No. 26,234

04/22/1999 MBLAND 00000001 09178595

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Enclosures:

1. Opinion of Patentability.
2. Opinion of Infringement with Supporting Declaration.
3. \$130 Check.

# **WILLIAM S. FIELD & ASSOCIATES**

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RESEARCH AND PROCUREMENT SERVICES  
PATENTS - TRADEMARKS - COPYRIGHTS

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March 16, 1999

Melvin K. Silverman, Esq.  
Registered Patent Attorney  
4901 North Federal Hwy., Suite 440  
Ft. Lauderdale, Florida 33308

URGENT  
VIA FEDERAL EXPRESS

Re: Patentability Search  
"PNEUMATIC TOY VEHICLES"  
Your File No.: 1133.18.1 (SpinMaster Toys Ltd.)

Dear Mr. Silverman:

In accordance with instructions in your letter of March 8, 1999, we have now conducted an expedited preliminary patentability (and collection) search on the above identified subject matter.

Briefly, the search was directed to pneumatically operated toy vehicles and, more particularly, to an interface or valved manifold structure for allowing air communication between a detachable, inflatable compressed air canister and a motor of the toy and an air supply source, such as depicted in FIGS. 1 and 9 and described in Claims 5 - 8 of the material forwarded by you. The manifold includes an air supply input, an air supply outlet connected to the motor of the toy, an air canister inlet/outlet in fluid communication with both the air inlet and air outlet, and valve means for blocking the air outlet when compressed air is delivered from the air inlet to the air canister. The air canister inlet/outlet is provided with facility in the form of threads and a seal for threadably securing and sealing the canister to the air canister inlet/outlet of the manifold. In addition, the search was directed to air canister and pneumatic toy interfaces per se.

The following patents were noted during the course of the search:

European Patent 151,313 A1  
European Patent 151,314 A1

Melvin K. Silverman, Esq.  
March 16, 1999  
Page Two

2,545,586 Pollak  
2,943,417 Greenspan et al  
3,232,001 Stanzel  
3,310,024 McConnell  
3,739,764 Allport  
4,159,705 Jacoby  
4,329,806 Akiyama et al  
5,149,290 Reveen  
5,529,527 Watkins  
5,531,627 Deal  
5,634,840 Watkins  
5,772,491 Watkins

The patents to Pollak 2,545,586; Greenspan et al 2,943,417; and Stanzel 3,232,001 all disclose pneumatically operated toy vehicles (albeit of the jet propulsion type) including the use of air canisters or gas cartridges for propelling the toy vehicle. Particular attention is invited to the Pollak and Stanzel patents which both further disclose the refilling of an on-board canister or balloon via an external air supply source. The Pollak patent, furthermore, shows, in FIGS. 1 - 5, a nozzle or manifold assembly 2 having one end 5 threadably coupled to the vehicle's air canister 1 and the other end 12, 13 threadably coupled to the external air supply source (not numbered). The manifold also is provided with a cylinder valve 14 for selectively controlling the discharge of the air from air canister 1, or possibly for selectively controlling the air inputted into the air canister 1.

The patent to Akiyama et al 4,329,806, discloses a fluid engine for use in a pneumatically operated toy having a noteworthy manifold/valve construction.

The patents to Allport 3,739,764 and Jacoby 4,159,705, both disclose inflatable balloon pneumatic toy devices per se having noteworthy line valve structures.

European Patent Nos. 151,313 and 151,314, both disclose pneumatic toy engines including means for sealingly engaging a removable gas supply cartridge thereto.

The patents to Reveen 5,149,290 and Watkins 5,529,527, 5,643,840 and 5,772,491, all disclose confetti cannons or launchers which utilize removable gas cartridges.

The remaining patents have been included as being of further possible interest in showing the general state of the art.

It should be understood that the search was primarily directed to fluid canister manifolds or interfaces for pneumatically operated toys and not necessarily to manifolds or

Melvin K. Silverman, Esq.  
March 16, 1999  
Page Three

interfaces per se for use on other type of apparatus.

It should also be understood that art directed to fluid canister manifolds or interfaces for specific use in pneumatic toys was extremely limited in the records of The U.S. Patent and Trademark Office.

The search was conducted in the following areas:

| <u>Classes</u> | <u>Subclasses</u>  |
|----------------|--|
| 124            | 57, 70 and 74;   |
| 137            | 588;   |
| 141            | 3, 20, 346, 347, 348 and 349; and                              |
| 446            | 37, 56, 57, 176, 180, 181, 186, 187,<br>211, 217, 218 and 225. |

The Examiners' foreign art and literature collections associated with only the most relevant areas were also investigated. A key word computer search on the APS database was also performed.

The search could be extended, possibly, to other areas (e.g., Classes 415 and 416). Nonetheless, it should be understood that the most pertinent areas were covered.

No integrity checks were conducted for this search. The results, therefore, are dependent upon the completeness and the accuracy of The U.S. Patent and Trademark Office records at the time the search was instituted.

If you have any questions or comments, or if we could be of further assistance, please do not hesitate to contact us.

Copies of the above-mentioned patents are enclosed herein, along with our debit memorandum for services.

Sincerely,

Melvin K. Silverman, Esq.

March 16, 1999

Page Four

FIELD & ASSOCIATES

BILL

William S. Field

WSF/wsf

Encls.



File No. 1133.13.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kownacki, et al EXAMINER: N/A  
APPLICATION NO.: 09/178,595 GROUP ART UNIT: 3712  
FOR: Pneumatic Engine  
FILED: 10/26/98

OPINION OF PATENTABILITY PURSUANT TO  
PETITION TO MAKE SPECIAL

Hon. Commissioner of Patents and Trademarks  
Petitions Section/Box DAC  
U.S. Patent and Trademark Office  
Washington, DC 20231

Dear Sir:

This comprises the Opinion of Patentability in support of a petition to make special as required by MPEP Section 708.02(II).

More particularly, the instant opinion is directed to the subject matter of Claims 5 to 8 of the above identified application, inasmuch as these claims represent the aspect of the instant invention of which the Applicants have present knowledge relative to an alleged infringement thereof. Further, it is probable that, upon initial

review of the instant application by the Examiner, a restriction requirement will be entered in which Claims 1 through 4 will constitute Group I, and Claims 5 through 8 will constitute Group II. Responsive thereto, Applicant will elect the species of Group II, given the issue of infringement which has arisen in connection therewith. Accordingly, the within opinion of patentability is directed solely to the species of Claims 5 to 8 which were presented to the U.S. Patent Office in a Preliminary Amendment bearing a certificate of mailing date of 10 March 1999.

As an initial step in the preparation of the present opinion of patentability, the undersigned counsel of Applicants requested a preliminary patentability and collection search in regard to the subject matter of Claims 5 through 8, this from the well-recognized patent search firm of William S. Field & Associates, Arlington, Virginia. A copy of Mr. Field's report to the undersigned is attached herewith as are those references developed by Mr. Field regarding the patentability of the subject matter of Claims 5 through 8.



Said Claims 5 through 8 are, for the convenience of the Commissioner set forth as follows:

- "5. A fluid input assembly for a pneumatic engine for toy vehicles, the assembly comprising:
- (a) an inflatable resilient compressed air canister; and
  - (b) an intake manifold comprising an external air inlet comprising means for selectably providing compressed air to said canister through said manifold.
6. The assembly as recited in Claim 5, in which an interface of said intake manifold and air canister defines means for complementary positive mechanical securement to thereby ensure secure fluid communication of said air inlet with said air canister.
7. The assembly as recited in Claim 6, in which said positive mechanical securement means comprises a radial bracket of said intake manifold including thread

means for securement to said canister and an elastomeric seal seated at said interface.

8. The assembly as recited in Claim 6 further comprising:
  - (c) an air inlet for said pneumatic engine in selectable fluid communication with said intake manifold."

As may be noted, the salient elements of the invention of Claims 5 to 8 include the following:

1. An inflatable resilient compressed air canister.
2. A bracket providing a positive mechanical securement of the mouth of the air canister to the intake manifold of a pneumatic engine.
3. Two selectable air inlets to the intake manifold, one from said canister and the other from an external pump.

The instant invention, as severally defined in one or more of the Claims 5 to 8, is distinguishable over the art of record by reason that the prior art, with the exception of Akiyami (below discussed), does not teach the use of a resilient compressed air canister. That is, most art of record, as it is applicable to toy vehicles employs a rigid high pressure cartridge of a compressed gas other than air, for example, carbon dioxide which is capable of substantial compression. Further, the prior art does not teach a means of mechanical securement of the mouth of any resilient compressed air canister to an intake manifold of an air inlet of a pneumatic engine capable of selectably exhausting compressed air from the canister, through a manifold, and to an air inlet of a pneumatic engine. In other words, the prior art which employs such cartridges are rocket-like propulsion devices which, do not include any means for selectably interrupting the path of fluid flow from the cartridge or canister to the air inlet of the pneumatic engine. In fact, the rocket cartridge, in most art of record, is the pneumatic engine. As such, the rocket (also known as jet) propulsion means provides a continuous fluid flow that acts as the "engine" of the vehicle. As such, no "selectable" provision of compressed air, or any other fluid, occurs in toy vehicles of the jet propulsion type.

With specific reference to the art of developed as a consequence of the search of William S. Field & Associates, the following references related to toy vehicles of the jet propulsion type, that is, vehicles in which the source of compressed gas comprises the engine itself were found:

U.S. Patents

2,545,586 Pollak.

2,943,417 Greenspan.

3,232,001 Stanzel.

5,531,627 Deal.

All of the above are toy vehicles of the jet propulsion type such that there does not exist any pneumatic engine having an air inlet requiring a selectable input of compressed air or gas for operation. In all of the disclosed structures, the compressed gas cartridge is the engine of the toy system. Accordingly, none of such references can read on any of the language of Claims 5 through 8.

The following patents are in the nature of miscellaneous other types of rocket toys wherein the compressed air cartridge is not resilient and in which the compressed air or gas means comprises the engine of the system:

3,739,764 Alport

4,159,705 Jacoby

A third class of prior art employs a carbon dioxide cartridge for the sole purpose of launching a package of confetti. These patents are as follows:

5,149,290 Reveen

5,529,527 Watkins.

5,634,840 Watkins

5,772,491 Watkins.

Accordingly, this art is similar in principle to that of the Group I above.

U.S. Patent No. 3,310,024 to McConnell employs a lighter than air gas, such as helium, in order to inflate and launch a signalling balloon.

The European patents enclosed herewith, namely, EP 151,313A1 and 151,314A1 both disclose use of a removable gas cartridge as a power means to a pneumatic toy engine. Accordingly, the structure of the European patents does not include a resilient non-removable compressed air canister. In other words, the

structure of both of the referenced European patents does not include an external air inlet comprising a means for selectably providing compressed air to a resilient canister through a manifold. As may be appreciated from the Applicant's specification (see Page 10 thereof), the resilient air canister 10 of Applicant's structure is externally filled and re-filled through a one-way check valve 12 which includes a proximal ball 14 situated within channel 16 of an intake manifold 18. As noted in the sentence in the middle of said Page 10:

"The air canister 10 is filled with a pressurized air by pumping through check valve 12 which in turn causes distal ball 20 of the check valve 12 to compress along the axis of spring 22 in the direction of the proximal ball 14. Spring 22 will compress sufficiently to permit passage of air through aperture 26 of a distal part of channel 16 and therefrom into channel 24 from which the air enters the air canister 10 for eventual usage with the pneumatic engine in the manner set forth below."

It is from the above to be appreciated that, unlike the referenced European patents and all other patents utilizing compressed air cartridges, the Applicants' resilient compressed air canister remains at all times in place as a part of the toy vehicle system and is re-filled externally, but *in situ*, through use of the one-way check valve 12.

The above leaves only one patent, namely, U.S. Patent No. 4,329,806 (1982) to Akiyami which uses a resilient compressed air canister which is filled and re-filled through the use of an external pump. However, the canister thereof, termed a reservoir in Akiyami, is mounted upon an external assembly (see Fig. 1 thereof) positioned upon a miniature or gas truck which, after re-filling, separates from the model airplane of Akiyami, connecting to the engine through a flexible tube 54. See also Fig. 2. Thereby, the reservoir 20 of Akiyami is not integral with the engine assembly nor is it a part of the plane itself except at the time of launch. See Fig. 9. Accordingly, Akiyami, while making use of a pneumatic engine, uses an externally re-fillable air canister as a glorified equivalent of the rigid compressed air cartridges employed in the prior art discussed above. As such, the disclosure of Akiyami does not read upon the claims at issue in that the air canister thereof

does not provide a complementary positive mechanical securement or interface between the mouth of the air canister and the intake manifold of the pneumatic engine of the toy vehicle. Therein, the reservoir of Akiyama does not remain with the plane during flight.

In view of the above, the subject matter of Claims 5 through 8 patentably defines over the art of record.

Respectfully submitted,  
CHARLES KOWNACKI, et al

BY 

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Reg. No. 26,234

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Enclosures:

1. Report of William Field & Associates.
2. Patent copies as recited above.





File No. 1133.13.1

#5  
Callie  
5/27/99

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Kownacki, et al EXAMINER: N/A  
APPLICATION NO.: 09/178,595 GROUP ART UNIT: 3712  
FOR: Pneumatic Engine  
FILED: 10/26/98

DECLARATION OF ANTON RABIE IN SUPPORT OF  
OPINION OF INFRINGEMENT

I, Anton Rabie, do hereby declare and aver as follows:

1. I am the president of Spin Master Toys, Ltd. ("Spin Master") a toy manufacturing and marketing company located in Toronto, Ontario. This company holds, through the Applicants in the above-identified application, the exclusive right to manufacture and market the invention reflected in the above-referenced application, this in the United States of America and elsewhere.

2. The first and second named co-inventors, namely, Charles Kownacki and Jeffrey Rehkemper contributed to the development of this invention pursuant to engineering development contracts with Spin Master. Ronnen Harary, the third named co-inventor, is vice president of operations of Spin Master and is a director of the Company. Accordingly, Spin Master holds rights to the subject invention

through Mr. Harary, both by virtue of contract and through the applicable corporate law of the Province of Ontario.

3. The invention (or inventions), reflected in the above-identified application defines material and integral aspects of an important product of Spin Master and, as such, constitute a part of the larger systems sold by Spin Master known as the AIR HOGS toy aeroplane and the AIR HOGS toy auto racing car. These products are vital to the continued health and operation of Spin Master. They were developed over a period of approximately two years at considerable expense and effort to Spin Master.

4. On or about January 22, 1999, I attended the so-called Dallas Toy Show, held at the Dallas Market Center, 2050 Stemmons Freeway, Dallas, Texas. On that trip, I was accompanied by a Mr. David Schilling who can corroborate my within comments.

5. While in attendance at the Dallas Toy Show I observed, on display by competitor of Spin Master, namely, Jasmin Toys, a line of pneumatically-operated toy vehicles, namely, a so-called AEROBATIC FLYER (see Exhibits A

and B herewith), a model racing car (see Exhibits C and D herewith), and a so-called TURBO ROCKET (see Exhibits E and F), all sold under the trademark AIR JAMMER.

6. Of these three AIR JAMMER products, the first and second, namely, the AEROBATIC FLYER and the model racing car are, at least in terms of packaging and product appearance, substantial copies of the above-referenced corresponding AIR HOGS products of Spin Master.

7. At the Dallas Trade Show I was, quite understandably, concerned and upset at the appearance for sale to the trade of such apparent "knock offs" of products which Spin Master had introduced to the market less than a year before. Accordingly, I attempted to examine the Jasmin products and to take photographs thereof. Such photos comprise Exhibits A thru F herewith.

8. More particularly, I attempted to determine the degree of structural similarity between the products and, particularly, the aeroplane (which is our lead product in the AIR HOGS line). Therein, I examined the prototypes on display by Jasmin.

9. More particularly, I had an opportunity to examine the AEROBATIC FLYER of the Jasmin AIR JAMMER line shown in Exhibit B. Therein, while I was unable to observe the pneumatic engine thereof, I was able to observe the fuselage structure which is a resilient canister largely defining most of the fuselage of the body of the AIR JAMMER, and the manner of interface of the mouth of the canister with the air intake manifold of the pneumatic engine.

10. In the photo of Exhibit 2, it is apparent that the fuselage of the Jasmin aeroplane consists of a translucent resilient polymeric material. Also visible in the view of Exhibit B is a nozzle, immediately rearwardly of the propeller, which constitutes an inlet valve which, as explained to me by the operators of the Jasmin booth at the Dallas Toy Show, is where an external pump is connected to re-fill, that is, re-pressurize the compressed air reservoir/fuselage, before each flight of the toy aeroplane.

11. Also, at the forwardmost portion of the air canister part of fuselage, I observed a circumferential bracket for mechanical securement of such mouth to the air inlet manifold to the engine of the AEROBATIC FLYER. It was thereby apparent that the Jasmin toy aeroplane employed an air intake manifold as a means


both of (a) providing an air inlet from the compressed air canister of the fuselage to the pneumatic engine and (b) as noted in the externally visible nozzle, providing an external air inlet to the intake manifold to enable, through the use of a pump, the provision of compressed air through said manifold to the resilient air canister of the fuselage of the Jasmin vehicle.

12. While, as above noted, I was unable to observe the inner structure of the pneumatic engine of the Jasmin vehicles, I was able to, quite carefully, examine the interface, that is, the intake manifold, between the resilient compressed air fuselage of the Jasmin aeroplane and its pneumatic engine, and the external air inlet of the intake manifold by which the aeroplane is re-filled with air after each period of flight.

13. The undersigned being hereby warned that wilful, false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001, and that such wilful false statements may jeopardize the validity of this application or of any resulting patent, and declares that all statements made of his

own knowledge are true and all statements made on information and belief are believed to be true.

April 14/99  
DATE

  
ANTON RABIE